

CLAIMS

What is claimed is:

- 5        1. A method of diagnosing an inflammatory disease or condition associated with articular cartilage or bone surfaces in a mammal, comprising:  
a) obtaining a patient sample from said mammal; and  
b) detecting an amount of a chlorinated compound/peptide(s) in said sample.
- 10      2. The method of Claim 1 wherein said detecting step further comprises measuring said amount of said chlorinated compound/peptide(s) in said patient sample.
- 15      3. The method of Claim 1 wherein said chlorinated compound/peptide(s) are at least one of the group of chlorinated forms of pyridinoline cross-links, lysine/hydroxylysine residues, aromatic amino acids, ketoimines and pyrrole cross-links.
- 20      4. The method of Claim 1 wherein said method comprises the immunospecific binding of an antibody to said chlorinated compound/peptide(s) in said patient sample.
- 25      5. The method of Claim 1 wherein said method comprises detecting said chlorinated compound/peptide(s) in said patient sample by U.V. absorbance or fluorescence.
- 30      6. The method of Claim 1 wherein said method comprises detecting said chlorinated compound/peptide(s) in said patient sample by mass spectrometry.
- 35      7. A method of monitoring a course of therapeutic agent(s) in treating a diseased condition associated with articular cartilage or bone surfaces in a mammal, comprising:  
a) obtaining a patient sample from said mammal;  
b) detecting an amount of a chlorinated compound/ peptide(s); and  
c) measuring said amount of said chlorinated compound/ peptide(s).

- 5            8. The method of Claim 7 wherein said chlorinated compound/peptide(s) are at least one of the group of chlorinated forms of pyridinoline cross-links, lysine/hydroxylysine residues, aromatic amino acids, ketoimines and pyrrole cross-links.

10            9. The method of Claim 7 wherein said method comprises the immunospecific binding of an antibody to said chlorinated compound/peptide(s) in said patient sample.

15            10. The method of Claim 7 wherein said method comprises detecting said chlorinated compound/peptide(s) in said patient sample by U.V. absorbance or fluorescence.

20            11. The method of Claim 7 wherein said method comprises detecting said chlorinated compound/peptide(s) in said patient sample by mass spectrometry.

25            12. A test kit for detecting and/or measuring a chlorinated compound/ peptide(s) in a mammal, comprising, in one or more containers, an antibody immunospecific for said chlorinated compound/peptide(s), said antibody is detectably labeled.

13. A method for preparing a synovial fluid sample for analysis of a biomarker, comprising:  
a) incubating said synovial fluid sample with hyaluronidase;  
b) digesting said synovial fluid from step a) with trypsin;  
c) treating said synovial fluid from step b) with cyanogen bromide; and  
d) analyzing said synovial fluid from step c) for a biomarker.

14. The method of claim 13 wherein said biomarker is a chlorinated peptide.